

Figure 1: Raw Data

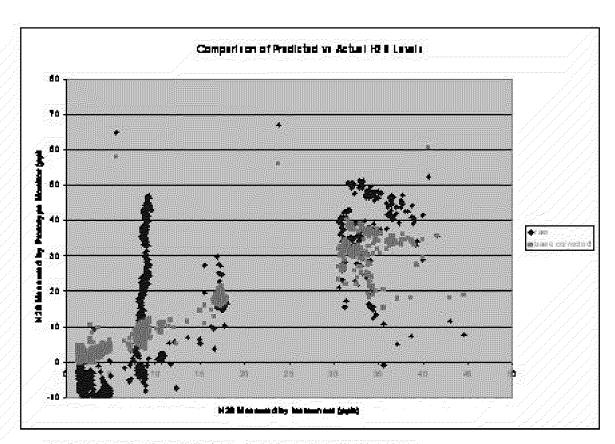


Figure 2: Baseline corrected output.

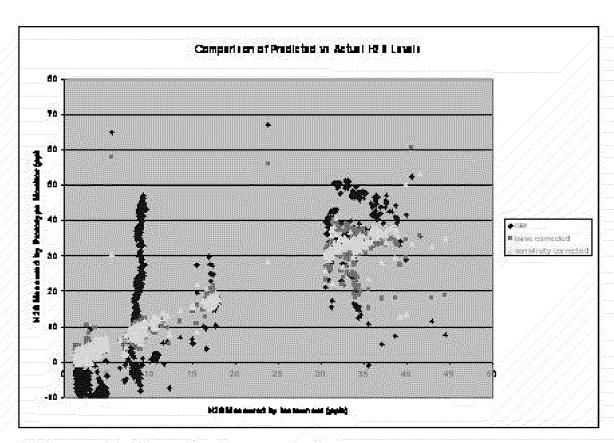


Figure 3: Sensitivity corrected.

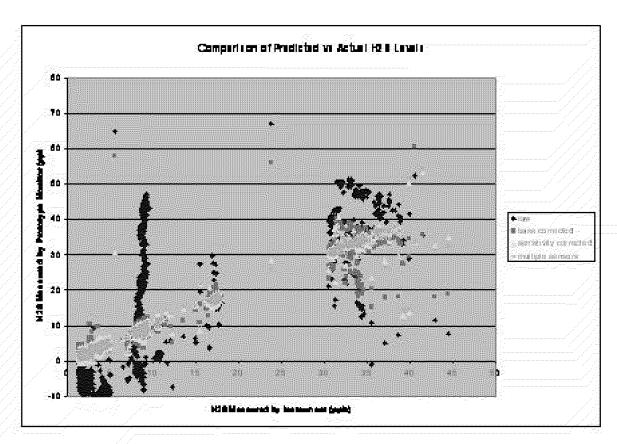


Figure 4: Multiple sensors.

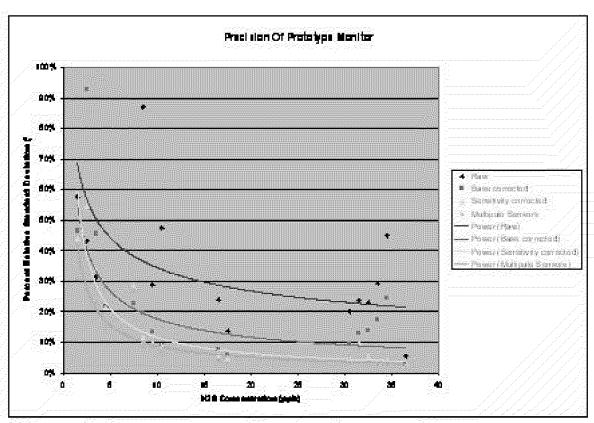


Figure 5: Improvement in monitor precision achieved by methodology.

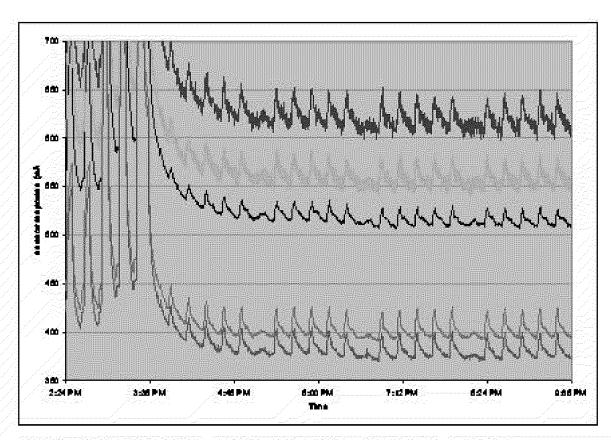


Figure 6 Sample output of five sensors cycling through the modes of operation.

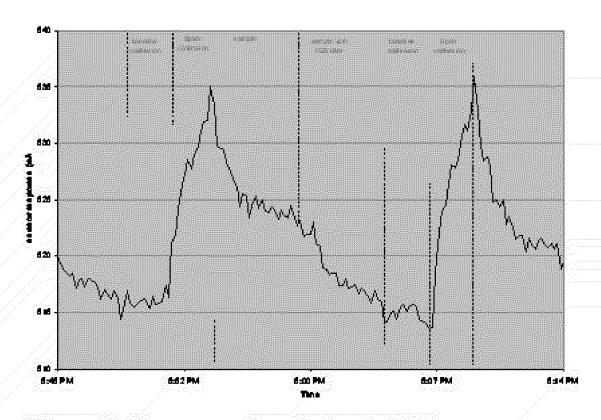


Figure 7: Sensor cycle with 1 ppb H2S

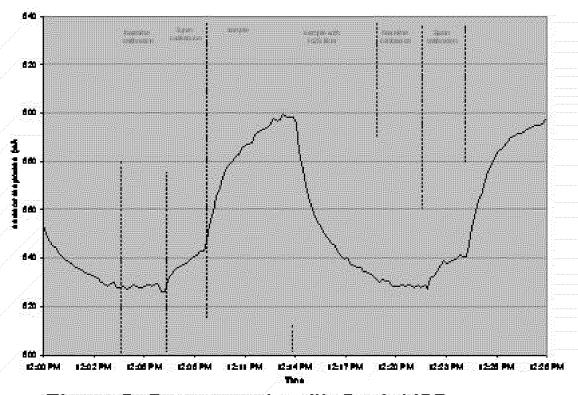


Figure 8: Sensor cycle with 8ppb H2S

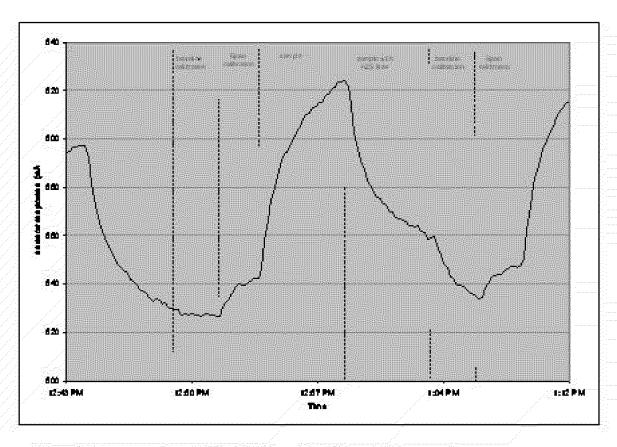


Figure 9: Sensor cycle with 8ppb H2S and 15ppb methyl mercaptan.

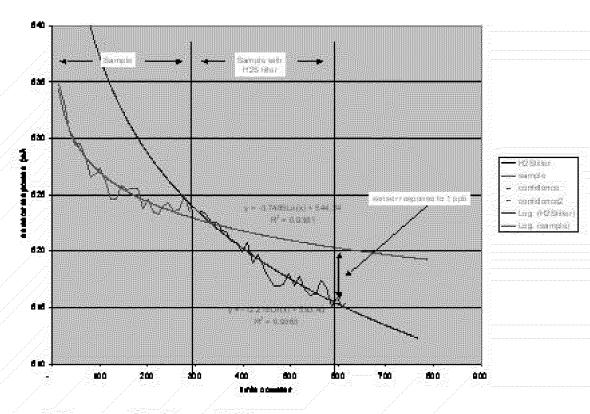


Figure 10: Quantifying sensor response

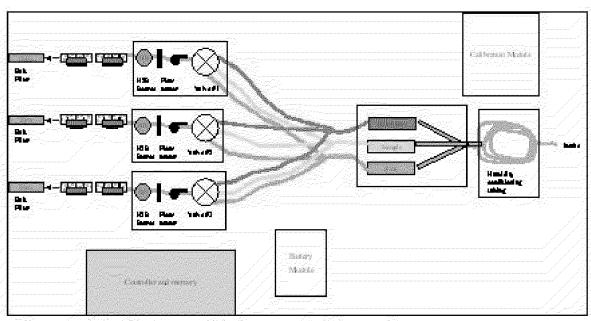


Figure 11: Schematic layout of monitor

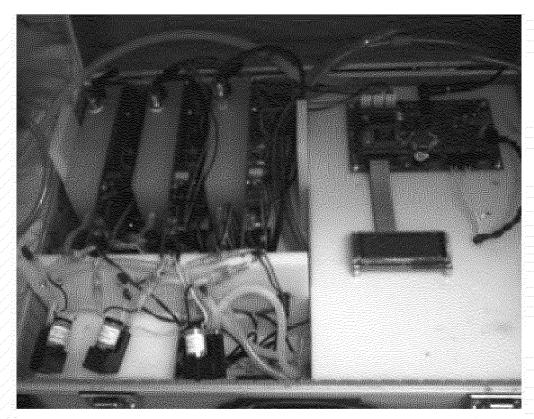


Figure 12: Prototype suitcase size monitor.

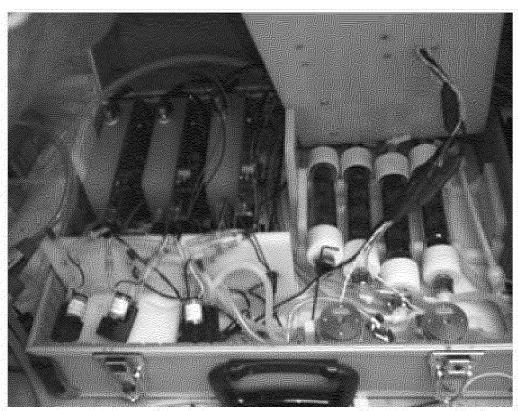


Figure 13: Prototype suitcase size monitor showing filters

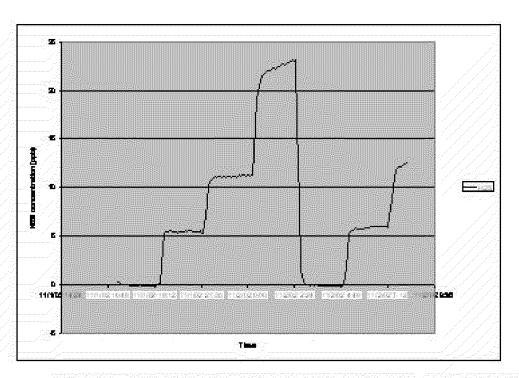


Figure 14: Sample of prototype output measuring 0, 6, 12, and 24 ppb  $H_{\mbox{\scriptsize 3}}S$  in laboratory.

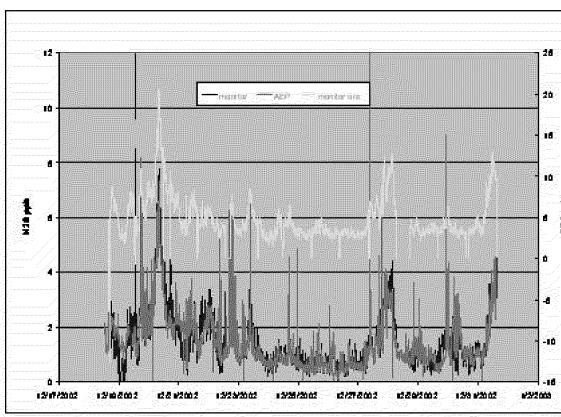


Figure 15: Results of field test with prototype monitor and AEP ambient station m

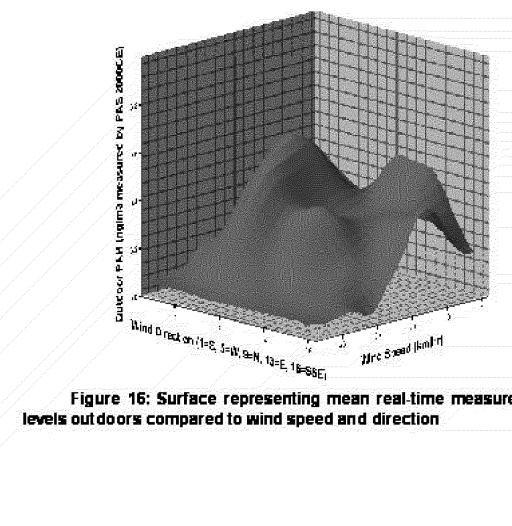


Figure 16: Surface representing mean real-time measures of PAH levels outdoors compared to wind speed and direction

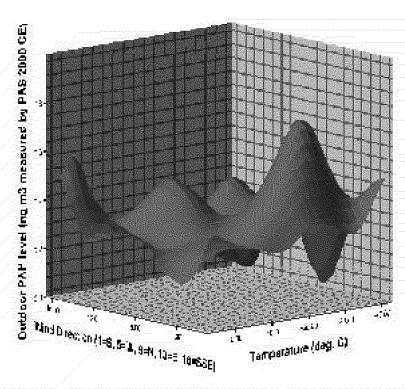


Figure 17: Surface representing mean real-time measures of PAH levels outdoors compared to wind direction and temperature

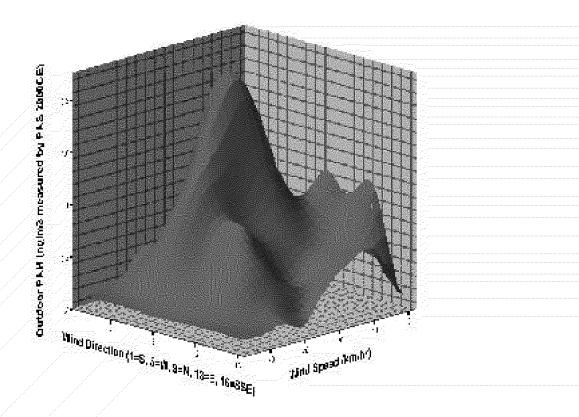


Figure 18: Surface representing mean real-time measures of PAH levels outdoors compared to wind speed and direction for temperatures less than  $-15\,\mathrm{C}$ .